Exports—(continued).

Article.		Quantity.	Value.
Glycerin	Cwts.	147,169	301,141
Manure, chemical	Tons	561,204	3,466,768
Salt, white rock	„	576,170	431,074
Painters' Colours and Materials:			
White lead	Cwts.	349,014	339,414
Nickel oxide	„	1,518	8,283
Zinc oxide	„	61,938	73,291
Other sorts	„	1,373,440	1,740,680
Total	„	1,786,610	2,161,668
Soda Compounds:			
Soda ash	„	1,491,625	314,957
„ bicarbonate	„	426,390	149,018
„ caustic	„	1,513,598	741,521
„ crystals	„	200,103	32,885
„ sulphate (saltcake)	„	742,332	64,175
„ other sorts	„	347,187	133,968
Total	„	4,721,235	1,436,524

New Books.

A Handbook for Cane-Sugar Manufacturers and their Chemists. By Guilford L. Spencer, D.Sc., Formerly Chief of Sugar Laboratory, U.S. Department of Agriculture, &c. Fourth Edition, Rewritten and Enlarged. First Thousand. John Wiley and Sons, New York. Chapman and Hall, Ltd., London. 1906. Price $3.00.

Small 16mo volume, bound in morocco and gilt, containing 320 pages of subject matter with 52 illustrations, and the alphabetical index, followed by list of tables and formulæ. The subject is divided into two parts. I. The Manufacture of Cane Sugar, and II. Sugar Analysis. The sub-divisions of these branches are as follows:—I. (i) Extraction of the Juice. (ii) Its Purification. (iii) Filtration of the Juice and Scums. (iv) Chemical Reagents used in Purifying the Juice. (v) Evaporation of the Juice. (vi) Preservation of the Juice and Syrup. (vii) Crystallisation of the Sugar. (viii) Curing the Sugars. Disposal of Low-grade Sugar. II. (i) Composition of the Sugar-cane and Molasses. (ii) Properties of the Sugars in the Cane. (iii) Optical and Chemical Methods of Sugar Analysis. (iv) Density Determinations. (v) General Analytical Work. (vi) Chemical Control of Sugar-house Work. (vii) Examination of Bone-black. (viii) Analysis of Limestone, Lime, and Sulphur. (ix) Lubricating Oils. (x) Analysis of Flue-gases. (xi) Quality of the Water-supply and Treatment of Impure Water. (xii) Fermentation. (xiii) Special Reagents. (xiv) Reference Tables.

Chapters on Paper Making. Vol. II. Comprising Answers to Questions on Paper Making set by the Examiners to the City and Guilds of London Institute. By Clayton Beadle. H. H. G. Grattan, 17, The Borough, London Bridge, London, S.E. 1906. Price 5s. nett. (See this J., 1904, 565, for notice of Vol. I.)

Small 8vo volume, containing 168 pages of subject matter and the alphabetical index. The work is divided into thirteen chapters, as follows:—I. Technical Education as Applied to Paper-making. II. The Use of Specially prepared Size in Dry Sheets for Paper Sizing. III. to VII. Questions set at the City and Guilds of London Institute's Examination for 1901, 1902, 1903, 1904, and 1905. VIII. Answers to 1901, Ordinary Grade. IX. Answers to 1901, Honours Grade. X. Answers to 1902, Ordinary Grade. XI. Answers to 1902, Honours Grade. XII. Answers to 1903, Ordinary Grade. XIII. Answers to 1903, Honours Grade.

Anregung zum Studium der auf Capillaritäts- und Adsorptionserscheinungen beruhenden Capillaranalyse. von Friedrich Goppelsroeder. Helbing and Lichtenhahn's Verlag, vorm. Reich-Detloff, Basel. 1906.

8vo volume, containing 239 pages of subject matter. The subject is treated under the following divisions or heads: I. History and General Significance of Capillarity. II. Introduction to "Capillary Analysis." III. Capillary- and Absorptive-Behaviour of the Dyestuffs, Alkaloids, Oils and Naphthas. IV. Application of Capillary Analysis in Inorganic Chemistry. V. Application of Capillary Analysis in the Testing of Foodstuffs, &c., as also in Pharmaceutical Chemistry. VI. Application also in Physiology.

Einführung in die Thermodynamik auf Energetischer Grundlage. von Dr. Julius Meyer. Privatdozent an der Universität Breslau. Wilhelm Knapp's Verlag. Halle a. S. 1905. Price M.8.

8vo volume, containing 209 pages of subject matter, and alphabetical indexes of authors and subjects. The entire subject is treated under the following heads: Introduction. I. Mathematical Introduction. II. and III. Energy and its two Prime Factors. A., IV. Calorimetry. V. Thermometry. VI. Equations of Condition. VII. Thermodynamic Co-efficients. B., VIII. First Principle of Thermodynamics. IX. Employment of Ideal Gases. X. Thermochemistry. XI. Dependence of the Internal Energy on the Temperature. C., XII. Carnot's Process. XIII. The Second Principle of Thermodynamics. XIV. Irreversible Processes. XV. Entropy. XVI. Entropy of Ideal Gases and Gaseous Mixtures. XVII. Applications of the Entropic Theory. XVIII. Absolute Temperature. XIX. Thermodynamic Potentials. XX. Conditions of Equilibrium. XXI. Theory of Phases. D., XXII. Free Energy. XXIII. Application of Isothermal Processes. XXIV. Dilute Solutions. XXV. Law of Mass Action. XXVI. Applications. XXVII. Electrical Energy. XXVIII. Free Energy of Formation. XXIX. Heat of Reaction and the Isochore.

The Laboratory Book of Dairy Analysis. By H. Droop Richmond, F.I.C. Chas. Griffin and Co., Ltd., Exeter Street, Strand, London. 1905. Price 2s. 6d. nett.

Small 8vo volume, containing 86 pages of subject matter and the alphabetical index. The text contains 38 illustrations, and is sub-divided as follows:—I. Introduction, Constituents of Milk, and its Products, &c. II. Analysis of Milk. III. Analysis of Liquid Milk-Products. IV. Application of Analysis to the Solution of Problems. V. Analysis of Butter. VI. Analysis of Cheese.

Fabrication des Produits Chimiques Proprement Dits. Royaume de Belgique, Ministère de l'Industrie et du Travail. J. Lebègue et Cie., Rue de la Madeleine, 46, Brussels. Price, 4 fr. 50. post free.

Royal 8vo volume, containing 353 pages of subject matter, a classified table of contents, and a frontispiece representing the chemical manufactory at Baelen-Wezel. The work gives a description of the various chemical industries of Belgium; its scope may be judged from the following extracts from the index:—*First Part. Sulphuric Acid and Superphosphates.* I. Mineral Acids and By-products. (1) Sulphuric Acid. (2) Nitric Acid. (3) Sodium Sulphate and Hydrochloric Acid. II. Calcium Phosphates. (1) Superphosphates. (2) Dissolved Guano. (3) Basic Phosphates. III. Accessory Products: Copper Precipitate, Copper Sulphate, Copper Nitrate, Ferrous Sulphate, Ferric Chloride, Barium Salts, Sodium Silicofluoride; Arsenic; Nickel and Copper Arsenides. *Second Part.*

Soda, Chlorides and Potash Salts. I. Sodium Carbonate and By-products. II. Bleaching Powder and Caustic Soda. III. (1) Soda Crystals. (2) Sulphurous Acid and Bisulphites. (3) Magnesium Sulphate, Sodium Hypochlorite, Zinc Chloride, Sodium Sulphide. IV. (1) Potassium Carbonate and Caustic Potash. (2) Potassium and Ammonium Nitrates. (3) Refined Salt. *Third Part. Other Products of Natural Minerals.* I. (1) Alumina and Aluminium Sulphate. (2) Potash Alum. (3) Various Aluminium Salts. II. (1) Phosphoric Acid. (2) Double Superphosphates. (3) Alkali Phosphates. (4) Phosphorus and Copper Phosphide. III. Mineral Colours. (1) Cerussite, Massicot and Minium. (2) Zinc White, Grey Oxide, and Zinc Powder. (3) Lithopone. (4) Ultramarine. (5) Ferric Oxide Pigments. (6) Various Colours. IV. Compressed Gases. (1) Oxygen and Hydrogen. (2) Sulphur Dioxide. (3) Carbon Dioxide. (4) Anhydrous Ammonia. V. (1) Sulphur. (2) Barium Sulphate. (3) Borax and Boric Acid. (4) Sodium and Potassium Silicates. *Fourth Part. Coal and Wood Products:* I. By-products of Coal-tar Distillation. II. Secondary Coal-tar Products, Ferrocyanides and Thiocyanates, Ammonia, Ammonium Sulphate, Tar Oils and their Products, Pitch. III. Direct Wood Products. A (1) Tannic Extracts. (2) Salicin. B. Pyroligneous Acid. IV. Secondary Wood Products. (1) Methyl Alcohol and its Derivatives. (2) Calcium Acetate and Products derived therefrom. (3) Wood Tar derivatives. V. Various Organic Products. (1) Ethyl Ether and Acetic Ester. (2) Nitrocellulose and Collodion. (3) Acetaldehyde and Paraldehyde. VI. Fine Chemicals. (1) Laboratory Products. (2) Pharmaceutical Preparations.